



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/573,751

03/29/2006

Ralf Krannich

1454.1701

3824

21171 7590 07/06/2011

STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

LEBASSI, AMANUEL

ART UNIT

PAPER NUMBER

2617

MAIL DATE

DELIVERY MODE

07/06/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/573,751	KRANNICH ET AL.	
	Examiner	Art Unit	
	AMANUEL LEBASSI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 13-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11 and 13-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 11, 13-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11, 13-28 are rejected under 35 U.S.C. 103(a) as being unpatentable by Kennedy US 20030069024 in view of MacDonald et al. US 20040152471 and in further view of Tang US 6799046.

Regarding claim 11, Kennedy discloses a method for estimating the position of a subscriber station in a radio communication system (**abstract-geolocating a wireless mobile unit**). Kennedy discloses receiving reports from the subscriber station at a receive station providing coverage for a radio cell in which the subscriber station is located, each report containing information relating to a signal strength at a location of the subscriber station of at least one receive signal received by the subscriber station and sent by a transmitting

station (**paragraph [0022]-[0023] where communication signals and pilot signal information from a mobile unit are received at a base station**).

Kennedy discloses storing the reports in a memory of the receive station of the radio communication system providing coverage for a radio cell in which the subscriber station is located (**paragraph [0023] where position estimation are stored in database**). Kennedy discloses receiving a request for position estimation at the receive station of the radio communication system (**paragraph [0020] geolocating a mobile unit with an infrastructure-based location system at a base station therefore receiving a request for position estimation at the receiving base station**). Kennedy discloses estimating the position at a position determining unit but is silent on taking into account at least two signal reports stored prior to the request for position estimation.

However MacDonald discloses taking into account at least two reports (paragraph [0014] and [0091] where comparison is made with at least two reported received signal strength values with at least two predetermined received strength values).

At the time of invention, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Kennedy, and have it include taking into account at least two reports as disclosed by MacDonald. The motivation would have been in order to make more accurate position determinations as discusses by MacDonald (paragraph [0011]).

Art Unit: 2617

Macdonald discloses method for geolocating a mobile unit from at least one base station (paragraph [0022]), but does not disclose directly providing coverage for the radio cell in which the subscriber station is located, such that received signal strength information is stored for signals received at the subscriber station from at least two different transmitting stations. However, Tang teaches providing coverage for the radio cell in which the subscriber station is located, such that received signal strength information is stored for signals received at the subscriber station from at least two different transmitting stations **(col. 4, lines 40-44 where the mobile telephone measures signals coming from each of the multiple base stations on a forward link (i.e., downlink) and then reports the results to the central location server within the MSC via the serving cell).**

At the time of invention, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Kennedy and MacDonald, and have it include providing coverage for the radio cell in which the subscriber station is located, such that received signal strength information is stored for signals received at the subscriber station from at least two different transmitting stations as disclosed by Tang. The motivation would have been in order to locate a mobile telephone within a cellular network **(col. 1, lines 9-15).**

Regarding claim 13, Kennedy teaches wherein the reports are received and/or stored regularly at specific time intervals (paragraph [0013]).

Regarding claim 14, MacDonald discloses wherein the reports are received and stored regularly at specific time intervals, and the reports are received and stored during both an active connection and in an idle mode (paragraph [0012]).

Regarding claim 15, MacDonald discloses wherein the memory stores a first number of reports as a maximum (paragraph [0046]).

Regarding claim 16, MacDonald discloses wherein the position determining unit requests a second number of reports from the network device (paragraph [0014]).

Regarding claim 17, MacDonald discloses wherein if the number of reports stored is fewer than the second number when the request for position estimation is received, then the receive station stores additional reports until the second number of reports has been stored or until a maximum period of time has expired (paragraph [0014]), if the second number of reports is stored before expiration of the maximum period of time, then the receive station sends the second number of reports prior to the expiry of the maximum period of time

Art Unit: 2617

(paragraph [0091]), and if the second number of reports cannot be stored before expiration of the maximum period of time, then the base station sends all stored reports after the expiry of the maximum period of time, even if the number of stored reports remains smaller than the second number of reports (paragraph [0091]).

Regarding claim 18, MacDonald discloses wherein the position determining unit estimates position by comparing signal strengths obtained from the reports with signal strengths stored in a signal strength database (paragraph [0012]) and see also (Tang, col. 5, lines 20-31).

Regarding claim 19, MacDonald discloses wherein each report also contains information relating to a transmitting power used to transmit the at least one receive signal (paragraph [0091]).

Regarding claim 20, MacDonald discloses wherein the reports also contain: a transmitting power used by the subscriber station to transmit the report to the receive station (paragraph [0091]), and a receive power at which each report was received by the receive station in each case (paragraph [0112]).

Regarding claim 21, MacDonald discloses wherein the reports are received and stored regularly at specific time intervals, and the reports are

received and stored during both an active connection and in an idle mode (paragraph [00120 and [0112]).

Regarding claim 22, MacDonald discloses wherein the memory stores a first number of reports as a maximum (paragraph [0046]).

Regarding claim 23, MacDonald discloses wherein the position determining unit requests a second number of reports from the network device (paragraph [0014].

Regarding claim 24, MacDonald discloses wherein if the number of reports stored is fewer than the second number when the request for position estimation is received, then the receive station stores additional reports until the second number of reports has been stored or until a maximum period of time has expired (paragraph [0014]), if the second number of reports is stored before expiration of the maximum period of time, then the receive station sends the second number of reports prior to the expiry of the maximum period of time, and if the second number of reports cannot be stored before expiration of the maximum period of time (paragraph [0091]), then the base station sends all stored reports after the expiry of the maximum period of time, even if the number of stored reports remains smaller than the second number of reports (paragraph [0091]).

Regarding claim 25, MacDonald discloses wherein the position determining unit estimates position by comparing signal strengths obtained from the reports with signal strengths stored in a signal strength database (paragraph [0012]).

Regarding claim 26, MacDonald discloses wherein each report also contains information relating to a transmitting power used to transmit the at least one receive signal (paragraph [0091]).

Regarding claim 27, MacDonald discloses wherein the reports also contain: a transmitting power used by the subscriber station to transmit the report to the receive station (paragraph [0091]), and a receive power at which each report was received by the receive station in each case (paragraph [0112]).

Regarding claim 28, Kennedy discloses a receive station for a radio communication system ((**abstract- communication signals and pilot signal information from a mobile unit are received at a base station**)). Kennedy discloses a memory, for storing the reports, which the receive station providing coverage for a radio cell in which the subscriber station is located has received from the subscriber station, in which the reports in each case contain information relating to a signal strength at a location of the subscriber station of at least one

Art Unit: 2617

receive signal received by the subscriber station and sent by a transmitting station (**paragraph [0023] where position estimation are stored in database**).

Kennedy discloses a transmitter to transmit, after a request for position estimation has been received at the receive station of the radio communication system but is silent at least two signal reports stored prior to receiving the request for position estimation, the reports being transmitted to a position determining unit, in which the position is estimated taking into account the at least two sequences and a controller to control the receive station so that at least two signal sequences are stored prior to the request for position estimation.

However MacDonald discloses at least two signal reports stored prior to receiving the request for position estimation, the reports being transmitted to a position determining unit, in which the position is estimated taking into account the at least two sequences and a controller to control the receive station so that at least two signal sequences are stored prior to the request for position estimation (paragraph [0014] and [0091] where reports being transmitted to a position determining unit and where comparison is made with at least two reported received signal strength values with at least two predetermined received strength values).

At the time of invention, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Kennedy, and have it include taking into account at least two reports as disclosed by

Art Unit: 2617

MacDonald. The motivation would have been in order to make more accurate position determinations as discusses by MacDonald (paragraph [0011]).

Macdonald discloses method for geolocating a mobile unit from at least one base station (paragraph [0022]), but does not disclose directly providing coverage for the radio cell in which the subscriber station is located, such that received signal strength information is stored for signals received at the subscriber station from at least two different transmitting stations. However, Tang teaches providing coverage for the radio cell in which the subscriber station is located, such that received signal strength information is stored for signals received at the subscriber station from at least two different transmitting stations **(col. 4, lines 40-44 where the mobile telephone measures signals coming from each of the multiple base stations on a forward link (i.e., downlink) and then reports the results to the central location server within the MSC via the serving cell).**

At the time of invention, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the inventions of Kennedy and MacDonald, and have it include providing coverage for the radio cell in which the subscriber station is located, such that received signal strength information is stored for signals received at the subscriber station from at least two different transmitting stations as disclosed by Tang. The motivation would have been in order to locate a mobile telephone within a cellular network **(col. 1, lines 9-15).**

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

2. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Amanuel Lebassi, whose telephone number is (571) 270-5303. The Examiner can normally be reached on Monday-Thursday from 8:00am to 5:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Nick Corsaro can be reached at (571) 272-7876. The fax phone number for

Art Unit: 2617

the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

Amanuel Lebassi

/A. L./

6/27/2011

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617